

Curriculum Reform for the Integration of Digital Literacy Education and Middle School English

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Abstract:

As digital technology keeps developing, digital literacy education has become a hot topic. As research on digital literacy has progressed, researchers have identified a research gap in developing digital literacy in junior school students. This study analyzes how to integrate junior high school English course with digital literacy education from three levels of the activity-based view of English learning. This study used semi-structured interview to find out the application of digital literacy in junior high school English. Furthermore, English teachers' perceptions of the course design proposed in this study were collected. The study found that digital literacy has not yet been taken seriously by junior high school English teachers. There are still difficulties in the integration of digital literacy into the English course. On the other hand, participants in the survey have expressed their approval of the course design proposed in this study. Corresponding conclusions are drawn based on the research findings.

Keywords: Junior High School English teaching; Digital Literacy; English Education.

1. Introduction

Rapidly evolving digital technology is a key driver of the industrial changes. For example, artificial intelligence are increasingly being used in people's lives and further changes the traditional way of people's work. In an era of information explosion, the demand for digital literacy continues to grow. Digital literacy help people not only access information efficiently, but also adapt to industrial transformation in society. Therefore, how to cultivate talents with high digital literacy to meet the demands of the new era has become a critical issue in the field of Chinese ed-

ucation. This research focuses on the actual teaching conditions of English in junior high schools in China, aiming to explore how to enhance students' digital literacy by osmosis. Teachers are digital immigrants, whereas pupils are the digital natives of today, according to Marc Prensky [1]. This means that students will be exposed to digital technologies earlier than past generations. Therefore, students should be educated on digital literacy at an earlier age. Moreover, the junior high school stage is a critical period for developing students' competence and literacy. This research purposes to provide junior high school

teachers with some ideas to inform their curriculum design, contributing to developing students' digital literacy and improving the efficiency of English language teaching. This research explores how to integrate digital literacy education with the junior high school English curriculum based on the activity-based view of English learning. This study will use a variety of research methods, including a review of the literature and semi-structured interviews, to address this problem and explore potential course designs that integrate digital literacy and English curricula. Additionally, the feasibility of the proposed course design and the current state of the integration of digital literacy and English curriculum was confirmed through interviews. Finally, relevant data will be collected and analyzed to draw conclusions.

2. Literature Review

The concept of digital literacy was first introduced by Paul Gilster in 1997. Digital literacy is the capacity to comprehend and make use of the many digital resources and information that are shown on computers [2]. Arsari, meantime, examined students' digital literacy abilities in English language acquisition through semi-structured interviews. According to his research, students often find it confusing to switch from offline classes to online learning. However, online learning plays an important role in complementing English learning materials. Hence, schools have an obligation to introduce digital literacy skills that meet the needs of the 21st century [3].

To enhance students' digital literacy, a number of scholars have proposed various teaching methods. Kim and Nam presents a college course called "Digital Literacy and English Education", which indicates that the development of students is positively correlated with the use of digital tools. [4]. In addition, some scholars have focused their research on senior high school students. In the study by Khairunnisa, Rahman and Handrianto, senior high students exercised their speaking skills directly through social networking platforms. The researcher emphasizes that by using digital literacy-based speaking classes, students can intentionally improve their speaking skills [5]. Likewise, Murtafi'ah and Putro provide two learning activity models to support teaching digital literacy in an English classroom at a senior high school [6]. Additionally, there are some scholars who study how to improve teachers' digital literacy. Akayoglu, Satar, Dikilitas, Cirit and Korkmazgil identified the concept of digital literacy for teachers and clarified its importance through qualitative research [7].

People in different countries and regions of the world take digital literacy quite seriously. Mediation has the affor-

dance and constraints. Digital literacy is precisely what helps to get a proper understanding of mediation properly and understand how to take advantage of its features. In an age of rapid technological advancement, acquiring digital literacy skills is conducive to using digital technology more efficiently and effectively, avoiding being overwhelmed by too much information from the Internet.

3. Digital Literacy Education Based on English course in Junior High School

Li Zhongyang, Zhou Jian and Sun Ning suggest that from the print era to the digital era, the core of media literacy is textual literacy [8]. Language literacy is the foundation of digital literacy, and junior high school is a key period for developing young people's abilities and literacy. Although digital literacy courses can be offered, it is more important to infuse the idea of developing digital literacy into the curricula of other subjects. Pressured by academic pressure and the difficulty of studying in different types of subjects, students may feel difficult to access additional digital literacy courses. Furthermore, the concept of multidisciplinary crossover is one of the themes closely followed in educational fields today. Thus, it is necessary to integrate the junior high school English curriculum with digital literacy. Next, this study will explore feasible junior high school English curriculum reform methods from the three levels of learning and understanding, application and practice, and transfer and innovation based on the activity-based view of English learning.

3.1 Learning and Understanding Activities

Learning and understanding activities are discourse-based activities. Teachers can show short revision videos to activate students' existing knowledge and abilities in relation to the teaching objectives. To set the stage for the course content and lead up to the problem to be solved, teachers can select digital platforms and provide keywords for students to search. In this way, students are given the ability to learn independently in a small field. More importantly, it initially develops students' ability to sift through digital information. On this basis, new discourse is explained to help students make connections between the old and new knowledge. At last, students can form new knowledge structures.

3.2 Application and Practice Activities

Application and practice activities are in-depth discourse activities. They require students to engage in communicative activities such as describing and analyzing new knowledge. Thus, a step-by-step problem-solving process

can be developed. This time, teachers no longer give the students keywords. Instead, teachers can encourage students to use digital tools independently to search for valid digital information and complete digital summaries. Finally, online collaborative discussions are conducted.

3.3 Transformation and Innovation Activities

Transformation and innovation activities are translanguaging activities. Instructors can assist students in organizing and summarizing the discourse's author's values. After that, students need to reflect on their own perceptual insights. Teachers can create a cyberspace, such as forum after school. Students were encouraged to share the new knowledge and understanding of the discourse they had learned today by transforming them into a digital text in order to let classmates make big progresses.

4. Research Method

This study is a qualitative research. As well-established modes of inquiry, qualitative research methodologies are often applied in social sciences and applied fields, which includes education [9]. Creswell points out that qualitative research facilitates the discovery of diverse perspectives and values. Moreover, qualitative research can acknowledge respondents' subjective ideas and respondents' an-

swers were faithfully recorded so as to examine the details [10]. With semi-structured interviews, this study could analyse English teachers' perceptions of the integration of digital literacy and English education in junior high school. The plausibility of the course design proposed in this study was explored in order to obtain the results of the qualitative analyses.

4.1 Research Questions

To know junior high school teachers' perceptions of digital literacy education and to investigate the plausibility of the course design proposed in this study, this research addressed the following questions:

- (1) How do English teachers understand digital literacy?
- (2) How do English teachers integrate digital literacy into their English teaching?
- (3) How do English teachers perceive the course design proposed in this study?

4.2 Participants for the Interviews

In order to know English teachers' attitudes towards digital literacy in junior high school, 3 English teachers in Chinese junior high schools were interviewed in August 2024. Real names will be changed to letters to protect respondents' personal information. The rest of the personal information is detailed in the table below.

Table 1. Basic Information of Participants

Name	Gender	Age	Teaching Experience	Grade Taught	School Nature
A	Female	42	18 years	Grade Nine	Public
B	Female	32	7 years	Grade Eight	Public
C	Male	29	3 years	Grade Seven	Private

In the Table 1, it shows that English teachers who have worked in the education sector for more than one year in junior high school responded in this study. The English teachers selected were of different genders, ages, teaching experience, schools and grades. To some extent, their views are representative of the views of teachers at the same level.

4.3 Data Collection

This study used semi-structured interviews to collect data. The perceptions of junior high school English teachers and their own teaching practices will be investigated. The interview outline included eight questions. Three teachers from different schools participated in this interview. Interviews were conducted through telephone, and consent was obtained from the respondents before the interviews. Each interview lasted approximately 30 minutes. Next, the

interview data were analyzed to summarize the teachers' views.

In the interviews, all teachers were asked questions precisely aimed at getting some details about the integration of digital literacy in English language teaching. Moreover, questions were asked to know about the situation faced in achieving the goal of teaching digital literacy in English language teaching. Teachers are encouraged to express their different views so as to recognizing other important aspects that may have previously been overlooked.

5. Results

On the basis of pre-processing the interview data, data processing and analysis were carried out in conjunction with the research questions. By this means, the status of the combination of China's junior high school English

curriculum and digital literacy can be revealed. The results about the attitudes towards digital literacy can be concluded by the responses to the first two questions in the interviews. The responses of the three teachers are set out below.

“I have learned about digital literacy, though it is generally harder to incorporate into the classroom for environmental reasons. However, students do need to have some digital literacy skills in today’s society. I will encourage students to search for relevant learning information outside of class.” (Teacher A)

“I have heard of the concept of digital literacy, but do not

often apply it to my teaching. We generally use digital technology more in public classroom settings. All equipment needs to be saved well when finished.” (Teacher B)
 “Digital literacy is really a hot topic, but I think students are already equipped for it. Moreover, if digital technology is used too much in the classroom, students may tend to become too active and difficult to control.” (Teacher C)
 In summary, this study categorized the data results into two areas, namely understanding and measures, and perceptions of the new course design. The table is shown below.

Table 2. Summary of English Teacher Interviews

Understanding and Measures	Perceptions of the New Course Design
I have an understanding of digital literacy education, but would not make it a secondary focus in the classroom.	The course is designed with the three levels of activity-based view of English learning. It is in line with the new course standard. The format of teaching is different from the traditional one, and to some extent it can engage students’ interest in learning. However, some schools may have hardware challenges in practice.

5.1 The Current State of Digital Literacy in the Junior High School Curriculum

According to Table 2, the survey showed that all teachers indicated that they had heard of digital literacy. Although when asked the second question, respondents indicated that they did not deeply integrate digital literacy into their classrooms. The main reasons for this are as follows. Firstly, the condition of environmental equipment varies from school to school. Furthermore, it is not possible to equip every classroom with high-end digital technology within the school. Secondly, this type of digital technology equipment often has a high property value. The amount of compensation for damage is high. That is why schools generally reduce students’ exposure to this type of technology. Finally, students tend to have less access to such electronic devices. Once used in the classroom, students may be too active and excited, making it difficult for the teacher to control the classroom discipline.

5.2 The Plausibility of the Course Design Proposed in this Study

According to Table 2, the survey showed almost all teachers expressed their approval of the course design proposed in this study. The reasons provided are as follows. On the one hand, the course design is based on the activity-based view of English language learning. Additionally, it fits with the classroom format under the concept of the new standards. On the other hand, because students can engage with the digital gadget, using it for teaching and learning activities is an approach that appeals to their interests. Not

only does it help to improve students’ English language skills, but it also helps them to improve their self-learning skills. However, some teachers have suggested that there are differences in the conditions of equipment in schools, and adjustments should be made accordingly.

6. Conclusion

This study proposes an English course design that incorporates digital literacy education based on the activity-based view of English learning. Through semi-structured interviews, it revealed that English teachers in junior high schools still have difficulties of the integration of digital literacy and the English course. This is demonstrated by the high cost of digital equipment and the fact that teachers place less emphasis on developing students’ digital literacy. Moreover, the course design proposed in this study is feasible. This study contributes to raising people’s awareness by confirming the significance of junior high school students’ digital literacy development. Additionally, it provides some reference ideas for English teachers to design the integration of digital literacy education into the classroom. Educators should realize that the basic way to improve literacy is to educate in schools. The integration of digital literacy and school teaching is the future trend. It is hoped that educators will be able to use digital technology to create a new English language environment that promotes both knowledge literacy and digital literacy of students. Finally, this study is a qualitative research. Semi-structured interviews contain subjective ideas of

English teachers and the sample size could be further expanded. In the future, the course design should be further applied in teaching practice to investigate students' views in order to facilitate in-depth research on this topic.

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